

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 9-29 are pending. Claims 17-29 are newly added. Claim 13 is amended to address a minor informality. Support for new Claims 17, 18, 27, and 28 can be found at page 7, lines 14-18 of the specification and in Fig. 1A, for example. As Claims 19-26 recite the features of Claims 9-16 without "means" language, support for new Claims 19-26 can be found in Claims 9-16, for example. Support for newly added Claim 29 can be found in Fig. 2 and at page 11, lines 10-13, for example. No new matter is added.

In the outstanding Office Action, Claim 13 was objected to as reciting an improper dependency. Claims 9 and 14 were rejected under 35 U.S.C. § 102(b) as anticipated by Hay et al. (U.S. Patent No. 6,278,811, herein "Hay"). Claim 15 was rejected under 35 U.S.C. § 103(a) as obvious over Hay in view of Maron et al. (U.S. Patent No. 5,892,860, herein "Maron"). Claims 10-13 and 16 were indicated as reciting allowable subject matter.

Applicant notes with appreciation the indication that Claims 10-13 and 16 recite allowable subject matter.

At the outset, Applicant wishes to thank Primary Examiner Song for the courtesy of a personal interview granted to Applicant's representatives on May 16, 2006. The substance of the interview is substantially summarized below in accordance with MPEP § 713.04.

Regarding the rejection of independent Claim 9 as anticipated by Hay, that rejection is respectfully traversed by the present response.

Independent Claim 9 recites:

A pressure sensor comprising:
an optical wave guide;
a first reflecting element formed in a portion of the
optical wave guide, the portion being submitted to pressure;
means for lateral support of the portion of optical wave
guide, wherein the portion of optical wave guide is submitted to

a compression prestress with a small value compared with a measurement range of the sensor;
a housing; and
a membrane that is subjected to pressure and closes the housing,
wherein the sensor acts in compression;
wherein the portion of the optical wave guide is placed in the housing and comprises first and second ends that are fixed to the membrane and to the housing respectively, and
wherein the means for lateral support comprises means for preventing buckling of the portion of optical wave guide when compressed.

Accordingly, a membrane is subjected to pressure and closes the housing. A first end of an optical waveguide is fixed to the membrane. A second end of the optical waveguide is fixed to the housing.

As discussed in the personal interview, Hay describes a solid, cylindrical device (12) through which a fiber (28) passes. The fiber (28) is attached to a face (51) of the device (12). The fiber (28) is also attached to a different face (50) of the device (12) at a first region (44).¹

As further discussed in the personal interview, the device (12) is not a “membrane” as a person of ordinary skill in the art would understand the term. Nor are the faces (50, 51) reasonably interpreted as membranes. Instead, the faces (50, 51) are merely surfaces of the solid, cylindrical device (12).

Accordingly, Applicant respectfully submits that independent Claim 9 patentably distinguishes over the invention of Hay described in Figs. 1-12 for at least the reasons discussed above.

Additionally, as further discussed in the personal interview, the description of a diaphragm or bellows in column 5 of Hay does not remedy the deficiencies discussed above regarding Figs. 1-12. Rather, the discussion of a diaphragm or bellows (not shown in any figure) in Hay merely describes a diaphragm or bellows having some form of mechanical

¹ Hay, col. 5, line 66 – col. 6, line 13 and Fig. 1.

contact with the pressure detecting device (12) in the area of end faces (50) and (51).² As discussed in the personal interview, Hay in no way discloses that the fiber (28) is "fixed" to the diaphragm or bellows. Indeed, as the diaphragm or bellows device is not shown in any figure, Hay makes no mention of the manner in which the diaphragm or bellows is attached to the overall pressure sensing device described in the figures. Thus, Hay does not disclose that the diaphragm or bellows is "fixed" to the fiber (28) as recited in independent Claim 9. Accordingly, Applicant respectfully submits that independent Claim 9 patentably distinguishes over Hay for at least the reasons discussed above.

Claim 14 depends from independent Claim 9 and patentably distinguishes over Hay for at least the same reasons as independent Claim 9. Accordingly, Applicant respectfully submits that the rejection of Claim 14 is overcome.

Regarding the rejection of Claim 15 as obvious over Hay in view of Maron, that rejection is respectfully traversed by the present response.

As discussed above, independent Claim 9 patentably distinguishes over Hay. Claim 15 depends from independent Claim 9. Accordingly, dependent Claim 15 patentably distinguishes over Hay for at least the same reasons as independent Claim 9.

Regarding Maron, the outstanding Office Action relies on Maron for the feature of rigid washers arranged one after the other in the housing. However, Applicant respectfully submits that no reasonable combination of Hay with Maron would include all of the features recited in independent Claim 9. Accordingly, Applicant respectfully submits that dependent Claim 15 patentably distinguishes over the cited references for at least the reasons discussed above.

Newly added Claim 17 recites the feature of a gap between the means for lateral support and the membrane. As discussed in the personal interview, none of the cited

² Hay, col. 5, lines 7-14.

references discloses a gap between a means for lateral support and a membrane.

Accordingly, Applicant respectfully submits that newly added dependent Claim 17 patentably distinguishes over the cited references for at least this additional reason.

Newly added Claim 18 depends from Claim 17 and recites that the means for lateral support is fixed to an axial end of the housing opposite the membrane and extends along the optical waveguide toward the membrane. Applicant respectfully submits that none of the cited references discloses a membrane fixed to the optical fiber as recited in independent Claim 9, and therefore, no reasonable combination of the cited references can include a lateral support fixed to an axial end and extending toward the membrane along the optical waveguide as recited in newly added Claim 18. Further, as Claim 18 depends from Claim 17, newly added Claim 18 also recites, by virtue of its dependency, a gap between the lateral support and the membrane. Accordingly, Applicant respectfully submits that newly added dependent Claim 18 patentably distinguishes over any reasonable combination of the cited references.

Newly added Claims 19-28 correlate to Claims 9-18, but with “means language” replaced with standard structurally descriptive terms. New independent Claim 19 also recites a membrane with an end of the portion of the optical wave guide fixed to the membrane. Accordingly, Applicant respectfully submits that newly added Claims 19-28 patentably distinguish over the cited references for at least the same reasons as Claims 9-18.

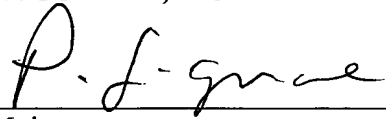
Newly added Claim 29 depends from independent Claim 9 and patentably distinguishes over the cited references for at least the same reasons.

For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance. A Notice of Allowance for Claims 9-29 is earnestly solicited.

Should Primary Examiner Song deem that any further action is necessary to place this application in even better form for allowance, she is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Registration No. 25,599
Philippe J.C. Signore
Registration No. 43,922
Attorneys of Record

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)
PCJS/LS:PCH

I:\ATTYLS\26s\268343US\268343US-AM.DOC